CONDITIONS OF APPROVAL FOR THE APPLICATION FOR PERMIT TO DRILL

POD Name: Table Mountain Phase 4

Operator Name: Anadarko Petroleum Corporation

Field Office: Buffalo Field Office
Address: 1425 Fort Street
Buffalo, Wyoming 82834

Office Telephone Number: 307-684-1100

List of Wells:

Table 2.1 Proposed Wells – Alternative B

No.	Well Name	Well No.	Qtr/Qtr	Section	Township	Range	Federal Lease No.
1	TM-CBM Fed	4476 5-14	SW¼/SW¼	05	44N	76W	WYW-128456
2	TM-CBM Fed	4476 5-23	NE¼/SW¼	05	44N	76W	WYW-128456
3	TM-CBM Fed	4476 5-34	SW¼/SE¼	05	44N	76W	WYW-128456
4	TM-CBM Fed	4476 5-43	NE¼/SE¼	05	44N	76W	WYW-128456
5	TM-CBM Fed	4476 6-14	SW¼/SW¼	06	44N	76W	WYW-112963
6	TM-CBM Fed	4476 6-32	SW¼/NE¼	06	44N	76W	WYW-128456
7	TM-CBM Fed	4476 6-43	NE¼/SE¼	06	44N	76W	WYW-128456
8	TM-CBM Fed	4476 7-12	SW¼/NW¼	07	44N	76W	WYW-41486
9	TM-CBM Fed	4476 7-23	NE¼/SW¼	07	44N	76W	WYW-41478
10	TM-CBM Fed	4476 7-34	SW¼/SE¼	07	44N	76W	WYW-112963
11	TM-CBM Fed	4476 8-12	SW¼/NW¼	08	44N	76W	WYW-128456
12	TM-CBM Fed	4476 8-21	NE¼/NW¼	08	44N	76W	WYW-128456
13	TM-CBM Fed	4476 8-23	NE¼/SW¼	08	44N	76W	WYW-128456
14	TM-CBM Fed	4476 8-32	SW¼/NE¼	08	44N	76W	WYW-128456
15	TM-CBM Fed	4476 8-41	NE¼/NE¼	08	44N	76W	WYW-128456
16	TM-CBM Fed	4476 8-43	NE¼/SE¼	08	44N	76W	WYW-128456
17	TM-CBM Fed	4476 18-32	SW¼/NE¼	18	44N	76W	WYW-128461
18	TM-CBM Fed	4477 1-14	SW¼/SW¼	01	44N	77W	WYW-603
19	TM-CBM Fed	4477 1-21	NE¼/NW¼	01	44N	77W	WYW-0311396A
20	TM-CBM Fed	4477 1-23	NE¼/SW¼	01	44N	77W	WYW-603
21	TM-CBM Fed	4477 1-41	NE¼/NE¼	01	44N	77W	WYW-0311396A
22	TM-CBM Fed	4477 2-21	NE¼/NW¼	02	44N	77W	WYW-0311396A
23	TM-CBM Fed	4477 2-41	NE¼/NE¼	02	44N	77W	WYW-0311396A
24	TM-CBM Fed	4477 3-41	NE¼/NE¼	03	44N	77W	WYW-0311396A
25	TM-CBM Fed	4477 10-12	SW¼/NW¼	10	44N	77W	WYW-128462
26	TM-CBM Fed	4477 10-14	SW¼/SW¼	10	44N	77W	WYW-128462
27	TM-CBM Fed	4477 10-21	NE¼/NW¼	10	44N	77W	WYW-128462
28	TM-CBM Fed	4477 10-23	NE¼/SW¼	10	44N	77W	WYW-128462
29	TM-CBM Fed	4477 10-32	SW¼/NE¼	10	44N	77W	WYW-128462
30	TM-CBM Fed	4477 10-34	SW¼/SE¼	10	44N	77W	WYW-128462
31	TM-CBM Fed	4477 10-41	NE¼/NE¼	10	44N	77W	WYW-128462
32	TM-CBM Fed	4477 10-43	NE¼/SE¼	10	44N	77W	WYW-128462
33	TM-CBM Fed	4477 11-14	SW¼/SW¼	11	44N	77W	WYW-128462

Table 2.1 Proposed Wells – Alternative B

No.	Well Name	Well No.	Qtr/Qtr	Section	Township	Range	Federal Lease No.
34	TM-CBM Fed	4477 11-22	SE¼/NW¼	11	44N	77W	WYW-603
35	TM-CBM Fed	4477 11-23	NE¼/SW¼	11	44N	77W	WYW-128462
36	TM-CBM Fed	4477 11-32	SW¼/NE¼	11	44N	77W	WYW-64500
37	TM-CBM Fed	4477 11-34	SW¼/SE¼	11	44N	77W	WYW-603
38	TM-CBM Fed	4477 11-41	NE¼/NE¼	11	44N	77W	WYW-128630
39	TM-CBM Fed	4477 12-14	SW¼/SW¼	12	44N	77W	WYW-64500
40	TM-CBM Fed	4477 12-23	NE¼/SW¼	12	44N	77W	WYW-64500
41	TM-CBM Fed	4477 12-34	SW¼/SE¼	12	44N	77W	WYW-35222
42	TM-CBM Fed	4477 12-43	NE¼/SE¼	12	44N	77W	WYW-35222
43	TM-CBM Fed	4477 13-12	SW¼/NW¼	13	44N	77W	WYW-64500
44	TM-CBM Fed	4477 13-21	NE¼/NW¼	13	44N	77W	WYW-64500
45	TM-CBM Fed	4477 14-41	NE¼/NE¼	14	44N	77W	WYW-140155
46	TM-CBM Fed	4477 15-32	SW¼/NE¼	15	44N	77W	WYW-140155
47	TM-CBM Fed	4576 34-12	SW¼/NW¼	34	45N	76W	WYW-112371
48	TM-CBM Fed	4576 34-14	SW¼/SW¼	34	45N	76W	WYW-144537
49	TM-CBM Fed	4576 34-21	NE¼/NW¼	34	45N	76W	WYW-112371
50	TM-CBM Fed	4576 34-23	NE¼/SW¼	34	45N	76W	WYW-144537
51	TM-CBM Fed	4576 34-32	SW¼/NE¼	34	45N	76W	WYW-112371
52	TM-CBM Fed	4576 34-34	SW¼/SE¼	34	45N	76W	WYW-144537
53	TM-CBM Fed	4576 34-41	NE¼/NE¼	34	45N	76W	WYW-112371
54	TM-CBM Fed	4576 34-43	NE¼/SE¼	34	45N	76W	WYW-144537

Water Management Proposal: There are no water impoundments proposed for use in association with this POD. The water management plan for this POD describes disposal of water via pipeline and existing pump station for eventual reinjection into the Madison Formation near Midwest in Natrona County, Wyoming.

Counties: Campbell and Johnson

Operator: Anadarko Petroleum Company

Surface Owners: John Christensen; Edwin J. Streeter et al.; and United States (U.S.) Department of the Interior, BLM

Drilling and Construction:

- Drilling of 54 wells in the Big George coal zone to depths of approximately 1,910 feet. Co-located wells are not proposed; co-mingling production is not applicable to this POD.
- Drilling and construction activities are anticipated to be completed within 2 years, the term of an APD. Drilling and construction occurs year-round in the PRB. Weather may cause delays lasting several days but rarely do delays last multiple weeks. Timing limitations in the form of COAs and/or agreements with surface owners impose longer temporal restrictions on portions of this POD, but rarely do these restrictions affect an entire POD.
- Well metering shall be accomplished by individual well telemetry. No central metering facility is proposed. Visits would be as needed depending on feedback from data collection. APC anticipates a minimum of three visits per well per month.

- A Water Management Plan (WMP) that involves the following strategy: Water disposal via pipeline and existing pump station to the Madison Formation for reinjection in Natrona County as authorized by Wyoming Department of Environmental Quality Underground Injection Control permit 05-231. No other water disposal infrastructure is planned.
- A road network consisting of existing and proposed improved (i.e., template or engineered) roads and primitive roads, including use of appropriately sized culverts.
- An aboveground power line network is in place that would supply power to the wells via transformers and underground power installation in proposed or existing roads/utility corridors. Power would be available to the wells before CBNG wells are producing, negating the need for temporary diesel generators.
- Utility corridors including buried gas, water, and power line networks; a majority of the utility corridors are within or immediately adjacent to roadways.

For a detailed description of design features, construction practices, and water management strategies associated with the Proposed Action, refer to Anadarko's Master Multi-Point Surface Use and Operations Plan (MSUP), Master Drilling Prognosis (Drilling Plan), Integrated Weed and Pest Management Plan, site-specific reclamation plans, and WMP in the POD and individual APDs. Also refer to the subject POD for maps showing the proposed well locations and associated facilities described above (APC 2010). More information on CBNG well drilling, production, and standard practices also is available in the PRB FEIS, Volume 1, pages 2-9 through 2-40.

Implementation of committed mitigation measures contained in the MSUP, Drilling Program, and WMP, in addition to the Standard COAs contained in the PRB FEIS ROD Appendix A, are incorporated and analyzed in this alternative.

List of approved Right-of Ways:
Right-of-Way Grants: Additionally, the operator has requested two right-of-way grants. This includes WYW-170047, granted under the FLPMA of 1976, for a template access road, water pipeline, and buried power line for the Table Mountain 4 POD on public lands described as follows:

6th PM, Johnson County, Wyoming
T44N, R77W
Section 10: lot 7
Section 11: lots 12, 13
Section 14: lots 4, 5, 12, 13
Section 15: lot 2
Section 23: lot 10
T45N, R77W,
Section 34: lots 11 and 14

The right-of-way area granted herein would contain:

- Template road – 50 feet wide, 3.203 miles long, and contains 19.414 acres, more or less;
- Water pipeline – 20 feet wide, 1.925 miles long, and contains 4.666 acres, more or less; and
- Buried power line – 15 feet wide, 1.925 miles long, and contains 3.500 acres, more or less.

The total right-of-way area would contain 27.58 acres, more or less. The maximum combined surface disturbance width of the template road, water pipeline, and buried power line under this right-of-way and the gas pipeline under WYW-170048 (described below) will not exceed 50 feet as a road/utility corridor.

The second requested right-of-way, WYW-170048, would be granted under the Mineral Leasing Act of 1920, for a gas pipeline for the Table Mountain 4 POD on public lands described as follows:

6th PM, Johnson County, Wyoming
T44N, R77W
Section 10: lot 7
Section 11: lots 12, 13
Section 14: lots 4, 5
Section 15: lot 2
T45N, R77W
Section 34: lots 11 and 14

The right-of-way area granted herein would be 35 feet wide, 1.925 miles long, and contain 8.166 acres, more or less. The maximum combined surface disturbance width of the gas pipeline under this right-of-way and the template road, water pipeline, and buried power line under WYW-170047 will not exceed 50 feet as a road/utility corridor.

Site-specific Conditions of Approval
In addition to the operator committed measures, and those incorporated from the Powder River Basin (PRB) Final Environmental Impact Statement (FEIS), the Bureau of Land Management (BLM) is including the following site-specific Conditions of Approval (COAs) to alleviate environmental impacts.

Surface Use

1. A 20-foot undisturbed vegetative buffer must be maintained between all surface disturbance from well drilling activities or well operation due to slope and the proximity to adjacent drainages for the following wells: 4476 5-14, 4476 5-34, 4476 6-14, 4476 6-43, 4476 7-23, 4476 7-34, 4476 8-12, 4476 8-32, 4476 8-41, 4476 18-32, 4477 1-14, 4477 2-21, 4477 2-41, 4477 3-41, 4477 10-22, 4477 10-43, 4477 11-14, 4477 11-32, 4477 12-23, 4477 12-34, 4477 12-43, 4477 13-12, 4477 14-41, 4477 15-32, and 4576 34-12.

2. All permanent aboveground structures (e.g., production equipment, tanks, etc.) not subject to safety requirements will be painted to blend with the natural color of the landscape. The paint used will be a color which simulates "Standard Environmental Colors." The color selected for this Table Mountain Phase 4 Coalbed Natural Gas (CBNG) Plan of Development (POD) is Covert Green.

3. Prior to constructing and drilling the well location, the operator shall build all engineered roads (including topsoiling, crowning, ditching, drainage culverts, et cetera) to ensure safe, environmentally sound, year-round access.

4. Due to poor reclamation potential, potential erosion, disturbance, and topography, a 30-Day Stabilization COA will apply to the following wells and infrastructure: 4476 5-14, 4476 5-23, 4476 5-34, 4476 5-43, 4476 6-14, 4476 6-43, 4476 7-12, 4476 8-12, 4476 8-21, 4476 8-32, 4476 8-41, 4476 8-43, 4476 8-32, 4477 1-21, 4477 1-23, 4477 2-21, 4477 2-41, 4477 3-41, 4477 10-12, 4477 10-21, 4477 10-23, 4477 10-34, 4477 10-43, 4477 11-14, 4477 11-32, 4477 11-34, 4477 12-14, 4477 12-23, 4477 12-34, 4477 12-43, 4477 13-12, 4477 13-21, 4477 14-41, 4477 15-32, 4576 34-12, 4576 34-21, and 4576 34-43.

5. Line the pit for the following wells: 4476 5-14, 4476 5-23, 4476 5-34, 4476 6-14, 4476 6-43, 4476 7-23, 4476 7-34, 4476 8-12, 4476 8-32, 4476 8-41, 4476 18-32, 4477 1-14, 4477 2-21, 4477 2-41, 4477 3-41, 4477 10-22, 4477 10-43, 4477 11-14, 4477 11-32, 4477 12-23, 4477 12-34, 4477 12-43, 4477 13-12, 4477 14-41, 4477 15-32, and 4576 34-12.

6. The operator will follow the guidance provided in the Wyoming Policy on Reclamation (Instruction Memorandum WY-90-231). The Wyoming Reclamation Policy applies to all surface-disturbing activities. Authorizations for surface-disturbing actions are based upon the assumptions that an area can and ultimately would be successfully reclaimed. BLM reclamation goals emphasize eventual ecosystem reconstruction, which means returning the land to a condition approximate to an approved "Reference Site" or Natural Resources Conservation Service Ecological Site Transition State. Final reclamation measures are used to achieve this goal. BLM reclamation goals also include the short-term goal of quickly stabilizing disturbed areas to protect both disturbed and adjacent undisturbed areas from unnecessary degradation. Interim reclamation measures are used to achieve this short-term goal.
7. Before replacing topsoil on disturbed surfaces, and on all other compacted surfaces, compaction will be remediated by ripping to the depth of compaction. Scarification will only be used on shallow soils.

8. The operator will seed on the contour to a depth of no more than 0.5 inch. To maintain quality and purity, certified seed with a minimum germination rate of 80 percent and a minimum purity of 90 percent will be used. On BLM surface or in lieu or a different specific mix desired by the surface owner, use the following:

   10- to 14-inch Precipitation Zone
   Clayey Ecological Site Seed Mix. Use this seed mix for well 4476 8-23.

Species	**% in Mix**	**Lbs PLS***
Western Wheatgrass (*Pascopyrum smithii*)	35	4.2
Green needlegrass (*Nassella viridula*)	30	4.8
Slender Wheatgrass (*Elymus trachycaulus* ssp. *trachycaulus*)	20	1.2
Prairie coneflower (*Ratibida columnifera*)	5	0.6
White or purple prairie clover (*Dalea candidum, purpureum*)	5	0.6
Rocky Mountain beeplant (*Cleome serrulata*)	5	0.6
Totals	**100**	**12 lbs/acre**

   10- to 14-inch Precipitation Zone
   Sandy Ecological Site Seed Mix. Use this seed mix for the following wells: 4476 8-32, 4576 34-12, 4576 34-14, and 4576 34-21.

Species	% in Mix	Lbs PLS*
Thickspike Wheatgrass (*Elymus lanceolatus* ssp. *lanceolatus*)	25	3.0
Prairie sandreed (*Calamovilfa longifolia*)	35	4.2
Indian ricegrass (*Achnatherum hymenoides*)	25	3.0
Prairie coneflower (*Ratibida columnifera*)	5	0.6
White or purple prairie clover (*Dalea candidum, purpureum*)	5	0.6
Blue flax (*Linum lewisii*)	5	0.6
Totals	**100**	**12 lbs/acre**

10- to 14-inch Precipitation Zone
Shallow Loamy Ecological Site Seed Mix. Use this seed mix for the following wells: 4476 18-32, 4476 5-14, 4476 5-43, 4476 6-14, 4476 6-32, 4476 7-23, 4477 10-14, 4477 10-21, 4477 10-23, 4477 10-32, 4477 10-34, 4477 10-43, 4477 11-22, 4477 11-23, 4477 11-32, 4477 12-34, 4477 15-32, 4477 2-21, 4477 2-41, and 4477 3-41.

Species	% in Mix	Lbs PLS*
Thickspike Wheatgrass (*Elymus lanceolatus* ssp. *lanceolatus*)	50	6.0
Bluebunch wheatgrass (*Pseudoroegneria spicata* ssp. *Spicata*)	35	4.2
Prairie coneflower (*Ratibida columnifera*)	5	0.6
White or purple prairie clover (*Dalea candidum, purpureum*)	5	0.6
Rocky Mountain beeplant (*Cleome serrulata*)	5	0.6
Totals	**100**	**12 lbs/acre**

10- to 14-inch Precipitation Zone
Loamy Ecological Site Seed Mix. Use this seed mix for the following wells: 4476 5-23, 4476 6-43, 4476 7-12, 4476 7-34, 4476 8-12, 4476 8-21, 4476 8-41, 4476 8-43, 4477 10-12, 4477 10-41, 4477 11-14, 4477 11-34, 4477 1-14, 4477 11-41, 4477 1-21, 4477 12-14, 4477 12-23, 4477 1-23, 4477 12-43, 4477 13-12, 4477 13-21, 4477 1-41, 4477 14-41, 4576 34-23, 4576 34-32, 4576 34-34, 4576 34-41, and 4576 34-43.

Species	% in Mix	Lbs PLS*
Western Wheatgrass (*Pascopyrum smithii*)/or **Thickspike Wheatgrass** (*Elymus lanceolatus* ssp. *lanceolatus*)	30	3.6
Bluebunch Wheatgrass (*Pseudoroegneria spicata* ssp. *Spicata*)	10	1.2
Green needlegrass (*Nassella viridula*)	25	3.0
Slender Wheatgrass (*Elymus trachycaulus* ssp. *trachycaulus*)	20	2.4

Species	% in Mix	Lbs PLS*
Prairie coneflower (*Ratibida columnifera*)	5	0.6
White or purple prairie clover (*Dalea candidum, purpureum*)	5	0.6
Rocky Mountain beeplant (*Cleome serrulata*)	5	0.6
Totals	**100**	**12 lbs/acre**

Wildlife

Raptors:

The following conditions will reduce impacts to raptors:

1. No surface-disturbing activity shall occur within 0.5 mile of all identified raptor nests from February 1 through July 31, annually, prior to a raptor nest occupancy survey (refer to **Table B.1**). Surveys shall be conducted by a biologist following the most current BLM protocol. All survey results must be submitted in writing to the Buffalo Field Office (FO) and approved prior to initiation of surface-disturbing activities. A 0.5 mile timing restriction will be applied if a nest is identified as active. This timing limitation will affect the following:

Table B.1 No Surface-disturbing Activity from February 1 through July 31 at the Following Project Infrastructure

BLM Raptor Nest ID	Project Infrastructure	Well ID	Location Information for Culverts, Power Drops, and Roads/Utility Corridors				
			Qtr/Qtr	Qtr	Section	Township	Range
10369	Wells: 4	4477 1-14 4477 1-21 4477 1-23 4477 2-41	---	---	---	---	---
	Culverts: 2		NE¼/NW¼	NW¼	1	44N	77W
	Power Drops: 3		SE¼	NE¼	2	44N	77W
			NW¼	NW¼	1	44N	77W
			NE¼	SW¼	1	44N	77W
	Proposed Roads/Corridors: 0.97 mile		NE¼	NE¼	2	44N	77W
			NW¼	SE¼	1	44N	77W
10370	Wells: 2	4477 1-14 4477 2-41	---	---	---	---	---
	Culverts: 5		NW¼/SW¼	SE¼	2	44N	77W
			NE¼	SW¼	2	44N	77W
			NE¼/NW¼	NW¼	1	44N	77W
	Power Drops: 3		NE¼	SW¼	2	44N	77W
			NW¼	SE¼	2	44N	77W
			SE¼	NE¼	2	44N	77W
			NW¼	NW¼	1	44N	77W
	Proposed Roads/Corridors: 0.98 mile		NE¼	NE¼	2	44N	77W
10371	Wells: 2	4477 1-14 4477 2-41	---	---	---	---	---
	Culverts: 5		NW¼/SW¼	SE¼	2	44N	77W
			NE¼	SW¼	2	44N	77W

Table B.1 No Surface-disturbing Activity from February 1 through July 31 at the Following Project Infrastructure

BLM Raptor Nest ID	Project Infrastructure	Well ID	Location Information for Culverts, Power Drops, and Roads/Utility Corridors				
			Qtr/Qtr	Qtr	Section	Township	Range
			NE¼/NW¼	NW¼	1	44N	77W
	Power Drops: 3		NE¼	SW¼	2	44N	77W
			NW¼	SE¼	2	44N	77W
			SE¼	NE¼	2	44N	77W
			NW¼	NW¼	1	44N	77W
	Proposed Roads/Corridors: 1.00 mile		NE¼	NE¼	2	44N	77W
10372	Wells: 4	4477 1-14 4477 1-21 4477 1-23 4477 2-41	---	---	---	---	---
	Culverts: 2		NE¼/NW¼	NW¼	1	44N	77W
	Power Drops: 3		SE¼	NE¼	2	44N	77W
			NW¼	NW¼	1	44N	77W
			NE¼	SW¼	1	44N	77W
	Proposed Roads/Corridors: 1.11 miles		NE¼	NE¼	2	44N	77W
			NW¼	SE¼	1	44N	77W
10375	Wells: 3	4476 8-12 4476 8-23 4476 8-21	---	---	---	---	---
	Culverts: 10		NE¼/SE¼	NE¼	7	44N	76W
			SW¼	NW¼	8	44N	76W
			SE¼/NE¼/NW¼	SW¼	8	44N	76W
			NW¼	SE¼	8	44N	76W
	Power Drops: 2		SW¼	NW¼	8	44N	76W
			SW¼	NE¼	8	44N	76W
	Proposed Roads/Corridors: 2.99 miles		NE¼/NW¼/SE¼/SW¼	NE¼	7	44N	76W
			NE¼/SE¼	SE¼	7	44N	76W
			NE¼/NW¼/SE¼/SW¼	NW¼	8	44N	76W
			NW¼/SW¼	SW¼	8	44N	76W
10379	Wells: 4	4477 11-34 4477 12-14 4477 13-12 4477 14-41	---	---	---	---	---
	Culverts: 2		NE¼	NW¼	14	44N	77W
			SW¼	NW¼	13	44N	77W
	Power Drops: 1		SW¼	NW¼	13	44N	77W
	Proposed Roads/Corridors: 1.57 miles		NW¼/SW¼/SE¼	SW¼	12	44N	77W
			SE¼	SW¼	11	44N	77W
			SW¼	SE¼	11	44N	77W
			NE¼	NW¼	14	44N	77W
			NW¼/SW¼	NW¼	13	44N	77W

Table B.1 No Surface-disturbing Activity from February 1 through July 31 at the Following Project Infrastructure

BLM Raptor Nest ID	Project Infrastructure	Well ID	Location Information for Culverts, Power Drops, and Roads/Utility Corridors				
			Qtr/Qtr	Qtr	Section	Township	Range
10381	Wells: 5	4477 12-14 4477 12-34 4477 13-12 4477 13-21 4477 14-41	---	---	---	---	---
	Culverts: 8		NE¼/SE¼	SW¼	12	44N	77W
			SW¼	SE¼	12	44N	77W
			SW¼	NE¼	13	44N	44N
			NW¼	SW¼	13	44N	77W
			SW¼	NW¼	13	44N	77W
	Power Drops: 2		SW¼	NE¼	13	44N	77W
			NW¼	SW¼	12	44N	77W
	Proposed Roads/Corridors: 2.78 miles		NW¼/NE¼/SW¼/SE¼	SW¼	12	44N	77W
			SW¼	SE¼	12	44N	77W
			NW¼/SW¼	NE¼	13	44N	77W
			NW¼/NE¼/SW¼/SE¼	NW¼	13	44N	77W
			NW¼/SW¼	SW¼	13	44N	77W
			NW¼	SE¼	13	44N	77W
10665	Wells: 4	4477 11-34 4477 12-14 4477 13-12 4477 14-41	---	---	---	---	---
	Culverts: 3		NE¼	NW¼	14	44N	77W
			SW¼	NW¼	13	44N	77W
			NW¼	SW¼	13	44N	77W
	Power Drops: 1		SW¼	NW¼	13	44N	77W
	Proposed Roads/Corridors: 1.57 miles		NW¼/SW¼/SE¼	SW¼	12	44N	77W
			SE¼	SW¼	11	44N	77W
			SW¼	SE¼	11	44N	77W
			NE¼	NW¼	14	44N	77W
			NW¼/SW¼	NW¼	13	44N	77W
4088	Wells: 1	4477 1-21	---	---	---	---	---
	Culverts: 1		NE¼	NW¼	1	44N	77W
4208	Power Drops: 1		NW¼	SE¼	34	45N	77W
	Proposed Roads/Corridors: 0.86 mile		NE¼/SE¼	SW¼	34	45N	77W
			SW¼/SE¼	SE¼	34	45N	77W
			NE¼	NW¼	3	44N	77W
5024	Power Drops: 1		NW¼	SE¼	34	45N	77W
	Proposed Roads/Corridors: 1.16 miles		NE¼/SE¼	SW¼	34	45N	77W
			SW¼/SE¼	SE¼	34	45N	77W
			NE¼	NW¼	3	44N	77W

Table B.1 No Surface-disturbing Activity from February 1 through July 31 at the Following Project Infrastructure

BLM Raptor Nest ID	Project Infrastructure	Well ID	Location Information for Culverts, Power Drops, and Roads/Utility Corridors				
			Qtr/Qtr	Qtr	Section	Township	Range
5319	Wells: 1	4476 8-41	---	---	---	---	---
	Culverts: 1		SE¼	NE¼	8	44N	76W
	Proposed Roads/Corridors: 0.46 mile		SE¼	NE¼	8	44N	76W
5547	Wells: 2	4477 1-21 4477 1-23	---	---	---	---	---
	Culverts: 2		NE¼/NW¼	NW¼	1	44N	77W
	Power Drops: 2		NW¼	NW¼	1	44N	77W
			NE¼	SW¼	1	44N	77W
	Proposed Roads/Corridors: 1.30 miles		NE¼	NE¼	2	44N	77W
			NW¼	SE¼	1	44N	77W
			SW¼	NE¼	1	44N	77W
5548	Wells: 2	4477 1-21, 4477 1-41	---	---	---	---	---
	Culverts: 3		NE¼	NW¼	1	44N	77W
			SE¼	NE¼	1	44N	77W
	Power Drops: 1		SE¼	NE¼	1	44N	77W
	Proposed Roads/Corridors: 0.87 mile		SW¼/NE¼/SE¼	NW¼	6	44N	76W
			NE¼/SW¼	NE¼	1	44N	77W
6377	Wells: 3	4476 8-32 4476 8-41 4476 8-43	---	---	---	---	---
	Culverts: 3		SE¼	NE¼	8	44N	76W
			NW¼	SE¼	8	44N	76W
			NE¼	SW¼	8	44N	76W
	Power Drops: 2		SE¼,SW¼	NE¼	8	44N	76W
	Proposed Roads/Corridors: 1.24 miles		SW¼/NW¼/NE¼	NE¼	8	44N	76W
			SW¼	SE¼	8	44N	76W
6381	Wells: 3	4476 8-12 4476 8-23 4476 8-21	---	---	---	---	---
	Culverts: 11		NE¼/SE¼	NE¼	7	44N	76W
			SW¼	NW¼	8	44N	76W
			SE¼/NE¼/NW¼	SW¼	8	44N	76W
			NW¼	SE¼	8	44N	76W
	Power Drops: 2		SW¼	NW¼	8	44N	76W
			SW¼	NE¼	8	44N	76W
	Proposed Roads/Corridors: 2.98 miles		NE¼/NW¼/SE¼/SW¼	NE¼	7	44N	76W
			NE¼/SE¼	SE¼	7	44N	76W
			NE¼/NW¼/SE¼/SW¼	NW¼	8	44N	76W

Table B.1 No Surface-disturbing Activity from February 1 through July 31 at the Following Project Infrastructure

BLM Raptor Nest ID	Project Infrastructure	Well ID	Location Information for Culverts, Power Drops, and Roads/Utility Corridors				
			Qtr/Qtr	Qtr	Section	Township	Range
			NW¼/SW¼	SW¼	8	44N	76W
6383	Wells: 2	4476 6-14 4477 1-41	---	---	---	---	---
	Culverts: 2		SE¼	NE¼	1	44N	77W
			NE¼	NE¼	12	44N	77W
	Power Drops: 2		NE¼	NE¼	1	44N	77W
			SW¼	NE¼	6	44N	76W
	Proposed Roads/Corridors: 2.98 miles		NE¼/NW¼/SE¼/SW¼	NW¼	6	44N	76W
			SW¼	NE¼	6	44N	76W
			SW¼	SW¼	6	44N	76W
			SW¼	SE¼	6	44N	76W
			SE¼	NE¼	1	44N	77W
			NE¼/SE¼	SE¼	1	44N	77W
6385	Culverts: 5		NE¼/SW¼	SE¼	13	44N	77W
			SE¼	SW¼	18	44N	76W
	Power Drops: 1		NE¼	SE¼	13	44N	77W
6386	Culverts: 3		SE¼	SW¼	18	44N	76W
	Proposed Roads/Corridors: 0.07 mile		NE¼/SE¼/SW¼	SW¼	18	44N	76W
6387	Wells: 3	4476 8-32 4476 8-41 4476 8-43	---	---	---	---	---
	Culverts: 3		SE¼	NE¼	8	44N	76W
			NW¼	SE¼	8	44N	76W
			NE¼	SW¼	8	44N	76W
	Power Drops: 2		SE¼/SW¼	NE¼	8	44N	76W
	Proposed Roads/Corridors: 1.24 miles		SW¼/NW¼/NE¼	NE¼	8	44N	76W
			SW¼	SE¼	8	44N	76W
6492	Culverts: 6		NW¼	SW¼	13	44N	77W
			SW¼	NW¼	13	44N	77W
			SW¼	NE¼	13	44N	77W
			SW¼	SE¼	13	44N	77W
	Proposed Roads/Corridors: 1.26 miles		NW¼/SW¼	SW¼	13	44N	77W
			NW¼/NE¼/SE¼	NW¼	24	44N	77W
			SW¼	NW¼	13	44N	77W
8373	Wells: 1	4477 13-12	---	---	---	---	---
	Culverts: 4		NW¼	SW¼	13	44N	77W
			SW¼	NW¼	13	44N	77W
	Proposed Roads/Corridors: 0.76 mile		NW¼/SW¼	SW¼	13	44N	77W
			NW¼	NW¼	24	44N	77W
			NW¼/SW¼	NW¼	13	44N	77W

2. If an undocumented raptor nest is located during project construction or operation, the Buffalo FO (307-684-1100) shall be notified within 24 hours.

Sage-grouse

The following conditions will reduce impacts to sage-grouse:

1. No surface-disturbing activities are permitted within the Table Mountain Phase 4 CBNG POD boundary between March 15 and June 30 to protect nesting and brood-rearing sage-grouse. This condition will be implemented on an annual basis for the life of the project. This timing limitation applies to 41 of the 54 wells. The well locations without sage-grouse timing limitations include: 4476 5-14, 4476 5-23, 4476 6-32, 4476 6-43, 4476 7-34, 4476 8-12, 4476 8-41, 4476 8-43, 4576 34-14, 4576 34-32, 4576 34-34, 4576 34-41, and 4576 34-43.
2. Disruptive activity is restricted on or within a 0.25-mile radius of the perimeter of occupied or undetermined sage-grouse leks from 6:00 pm to 8:00 am from March 15 to May15. Disruptive activities are those that "…require people and/or activity to be in nesting habitats for a duration of 1 hour or more during a 24-hour period…" (BLM 2009). This condition applies to the following wells in close proximity to the Christensen Ranch 3 and Christensen Ranch 7 leks: 4477 11-22, 4477 11-23, 4477 10-43, 4476 7-12, 4477 12-43, and 4476 6-14.
3. Noise from infrastructure within the POD is not to exceed 49 decibels (10 dBA above background noise) at any nearby sage-grouse or sharp-tailed grouse display grounds.

Cultural

1. Per the Programmatic Agreement (PA) Between the BLM and the Wyoming State Historic Preservation Officer Regarding Mitigation of Adverse Effects to The Pumpkin Buttes Traditional Cultural Property (TCP) from Anticipated Federal Minerals Development Campbell County, Wyoming; Stipulations II; Anadarko will instruct all employees, contractors, subcontractors and any additional parties involved with on the ground operations of their project to avoid the Pumpkin Buttes TCP.

2. Per the PA Between the BLM and the Wyoming State Historic Preservation Officer Regarding Mitigation of Adverse Effects to The Pumpkin Buttes TCP from Anticipated Federal Minerals Development Campbell County, Wyoming; Appendices A-G; Anadarko will operate under mitigation measures found in Appendices A-G of the PA during all phases (drilling, construction, operation, reclamation, etc.) of wells within 2 miles of the TCP boundary (see following list) and their associated infrastructure (new surface disturbance to junction with existing disturbance). Table Mountain Phase 4 wells within 2 miles of the TCP boundary include: All Federal wells in Section 34 T45N R76W, 4476 5-34, 4476 5-43, 4476 8-23, 4476 8-32, 4476 8-41, and 4476 8-43.

3. All surface disturbing activities within 200 feet of eligible historic properties 48CA6365/48JO3763 and 48JO963 will be monitored by a cultural resource use permitee (CRUP). The CRUP shall notify the Buffalo FO cultural staff no less than 3 days in advance of construction activities.

4. All surface disturbing activity in the following areas will be monitored by a BLM CRUP holder or permitted crew chief: areas containing alluvial or eolian deposits near Willow Creek and North Prong Willow Creek. The BLM has identified these areas as having a high potential for buried cultural deposits. Some portions of the monitoring areas as described may lie outside alluvial or eolian deposits and exact monitoring areas are left to the discretion of the archaeological monitor. All monitored areas must be plotted on the map provided with the monitoring report. The submission of two copies of a monitoring report to Buffalo FO is required within 30 days of the completion of all monitoring work.

a. All surface disturbing activity proposed for Table Mountain Phase 4 that occurs within alluvial or eolian deposits along Willow Creek and North Prong Willow Creek will be monitored by a CRUP.

Programmatic Mitigation Measures Identified in the PRB FEIS ROD
The following programmatic mitigation measures are listed in Appendix A-5 of the PRB FEIS Record of Decision (ROD).

Programmatic mitigation measures are those, determined through analysis, which may be appropriate to apply at the time of Application for a Permit to Drill (APD) approval if site-specific conditions warrant. These mitigation measures can be applied by BLM, as determined necessary at the site-specific National Environmental Policy Act APD stage, as COAs and will be in addition to stipulations applied at the time of lease issuance and any standard COA.

Surface Water
1. Channel Crossings:
   - Channel crossings by road and pipelines will be constructed perpendicular to flow. Culverts will be installed at appropriate locations for streams and channels crossed by roads as specified in the BLM Manual 9112-Bridges and Major Culverts and Manual 9113-Roads. Streams will be crossed perpendicular to flow, where possible, and all stream crossing structures will be designed to carry the 25-year discharge event or other capacities as directed by the BLM.
   - Channel crossings by pipelines will be constructed so that the pipe is buried at least 4 feet below the channel bottom.
2. Low water crossings will be constructed at original streambed elevation in a manner that will prevent any blockage or restriction of the existing channel. Material removed will be stockpiled for use in reclamation of the crossings.

Wetland/Riparian
1. To protect the biological and hydrologic features of riparian areas, woody draws, wetlands, and floodplains, all well pads, compressors, and other non-linear facilities will be located outside of these areas.
2. To reduce adverse effects on existing wetlands and riparian areas, water discharge should not be allowed if increased discharge volumes or subsequent recharge of shallow aquifers will inundate and kill woody species, such as willows or cottonwoods.
3. For any jurisdictional wetlands identified that may be impacted, a detailed mitigation plan will be developed during the APD/POD or sundry notice approval process. Federal requirements to replace all impacted wetlands will mitigate this loss, so environmental impacts will occur only during the life of the project (including reclamation).
4. Any fences used in wetland areas should be placed well back from the wetlands to prevent waterfowl mortalities and should be constructed to standards that allow big game movements.
5. Crossings of wetland/riparian areas by linear features, such as pipelines, roads, and power lines will be avoided to the extent practicable. Where crossings cannot be avoided, impacts will be minimized through use of the following measures:

- Site-specific mitigation plans will be developed during the APD, POD, or Sundry Notice approval process for all proposed disturbance to wetland/riparian areas.
- Crossings will be constructed perpendicular to wetland/riparian areas where practical.

Wildlife

1. For any surface-disturbing activities proposed in sagebrush shrublands, the Companies will conduct clearance surveys for sage-grouse breeding activity during the sage-grouse's breeding season before initiating the activities. The surveys must encompass all sagebrush shrublands within 0.5 mile of the proposed activities. The Companies will locate compressor stations so that noise from the stations at any nearby sage-grouse or sharp-tailed grouse display grounds does not exceed 49 decibels (dB) (10 decibels on the A-weighted scale [dBA] above background noise) at the display ground.
2. Containment impoundments will be fenced to exclude wildlife and livestock. If they are not fenced, they will be designed and constructed to prevent entrapment and drowning.

Threatened, Endangered, or Sensitive Species

1. The Companies will conduct clearance surveys for threatened, endangered, or other special-concern species at the optimum time. Inventory for special concern species, other than federally listed species below, is contingent upon landowner concurrence. This will require coordination with the BLM before November 1 annually to review the potential for disturbance and to agree on inventory parameters.

Bald Eagle

1. In the event that a bald eagle (dead or injured) is located during construction or operation, the U.S. Fish and Wildlife Services' (USFWS') Wyoming Field Office (307-772-2374) and the USFWS' Law Enforcement Office (307-261-6365) will be notified within 24 hours.
2. A minimum disturbance-free buffer zone of 0.5 mile (i.e., no surface occupancy) will be established year-round for all bald eagle nest sites. A seasonal minimum disturbance-free buffer zone of 1 mile will be established for all bald eagle nest sites (February 15 through August 15).
3. Additional mitigation measures may be necessary if the site-specific project is determined by a BLM biologist to have adverse effects to bald eagles or their habitat.

Mountain Plover

1. In the event that a mountain plover is located during construction or operation, the USFWS' Wyoming Field Office (307-772-2374) and the USFWS' Law Enforcement Office (307-261-6365) will be notified within 24 hours.
2. A disturbance-free buffer zone of 0.25 mile will be established around all mountain plover nesting locations between March 15 and July 31.
3. Work schedules and shift changes will be set to avoid the periods from 30 minutes before to 30 minutes after sunrise and sunset during June and July, when mountain plovers and other wildlife are most active.

Transportation

1. The Companies will provide georeferenced spatial data depicting as-built locations of all facilities, wells, roads, pipelines, power lines, reservoirs, discharge points, and other related facilities to the BLM upon completion of POD construction and development. Until POD construction and development is complete, the company will provide the most current as-builts yearly on or before November 1.

2. Companies will contact the counties to pursue development of maintenance agreements to ensure county roads are adequately maintained for the projected increase in use.

Visual Resources

1. The Companies will complete the following measures, where practical: use existing well pads where feasible, use vegetative and topographic screening when siting well locations, avoid highwall cuts.
2. Use buried power lines to each well, where feasible, to reduce the linear element in the landscape.

Noise

1. Noise mufflers will be installed on the exhaust of compressor engines to reduce the exhaust noise.
2. Where noise impacts to existing sensitive receptors are an issue, noise levels will be required to be no greater than 55 dB measured at a distance of 0.25 mile from the appropriate booster (field) compressor. When background noise exceeds 55 dBA, noise levels will be no greater than 5 dBA above background. This may require the installation of electrical compressor motors at these locations.

   Two measurements commonly used to relate the time-varying quality of environmental noise to its known effects on people are the equivalent sound level (L_{eq}) and the average day/night noise level (L_{dn}). The L_{eq} is an A-weighted sound level containing the same sound energy as the instantaneous sound levels measured over a specific time period. Noise levels are perceived differently, depending on the length of exposure and the time of day. The L_{dn} takes into account the duration and time the noise is encountered. An additional 10 dBA are added to late night and early morning (10:00 p.m. to 7:00 a.m.) noise exposure levels to account for people's greater sensitivity to sound during the nighttime hours. After adjustment, the 24 hourly values are averaged to determine the L_{dn}.

   Existing literature concludes an Ldn of 55 dBA is equivalent to a continuous noise level of 48.6 dBA for facilities that operate at a constant level of noise (Federal Energy Regulatory Commission 2003).

   Noise can be reduced by construction of obstacles in the direct path from the noise source to a receiver or by increasing the distance between a Coalbed Methane (CBM) facility and an existing noise-sensitive receptor.

Air Quality

A number of mitigation options for CBM are part of Wyoming Department of Environmental Quality's (WDEQ's) normal regulatory procedure. For instance, in the permitting of compressors, the agency always requires the application of best available control technology (BACT). The theory here is simply that given the air resource available, within technological and financial feasibility, the number of operations that can be allowed is maximized.

1. During construction, emissions of particulate matter from well pad and resource road construction will be minimized by application of water, or other dust suppressants, with at least 50 percent control efficiency. Roads and well locations constructed on soils susceptible to wind erosion could be appropriately surfaced or otherwise stabilized to reduce the amount of fugitive dust generated by traffic or other activities, and dust inhibitors (surfacing materials, non-saline dust suppressants, and water) could be used as necessary on unpaved collector, local, and resource roads that present a fugitive dust problem. The use of chemical dust suppressants on BLM surface will require prior approval from the BLM Authorized Officer (AO).

   - A variety of potential emission reduction measures (BLM 1999d) are available to further limit nitrogen oxide (NO_X) and other air pollutant emissions. The evaluation was not intended to rank or identify a required emission reduction measure; the appropriate level of control will be

determined and required by the applicable air quality regulatory agencies during the pre-construction permit process.

BLM also will continue to cooperate with existing visibility and atmospheric deposition impact monitoring programs. The need for, and the design of, additional monitoring could include the involvement of the U.S. Environmental Protection Agency (EPA) Region 8 Federal Leadership Forum and applicable air quality regulatory agencies. Based upon future recommendations, operators could be required to cooperate in the implementation of a coordinated air quality monitoring program. Oil and gas lease terms (Section 6) require the lessee, within the lease rights granted, to take measures deemed necessary by the lessor for the conduct of operations in a manner that minimizes adverse impacts to air quality, as well as other resources.

Geology

Inadvertent release to the atmosphere of the methane resource will be controlled through Wyoming Oil and Gas Conservation Commission (WOGCC) requirements and APD conditions of approval that address well control, casing, ventilations, and plugging procedures appropriate to site-specific CBM development plans.

Standard Conditions of Approval Identified in the PRB FEIS ROD

Standard Conditions of Approval are those measures that apply to all oil and gas development. These conditions are applied to both APD and Sundry Notices when they are not specifically addressed in those plans by the Companies. There are standard conditions of approval that apply only to CBM activities and others that apply to both conventional oil and gas and CBM activities. Section B.3.1 identifies standard conditions of approval applicable to development involving only coal bed methane. Section B.3.2 identifies standard conditions of approval that are pertinent to all Federal oil and gas lease development. Not all of the conditions in this second section are applicable to development of CBM.

It is important to note that site-specific mitigation measures also are developed by the BLM AO, as needed, on a case-by-case basis at the onsite inspection to address special, unanticipated issues not addressed by a programmatic mitigation measure or standard conditions of approval (e.g., erosive soils, steep slopes, proximity to existing improvements, et cetera).

The following standard conditions of approval are listed in Appendix A-4 of the PRB FEIS ROD.

Applicable to Coal Bed Methane Well Development Only

1. A pre-construction field meeting shall be conducted prior to beginning any dirt work approved under this POD. The operator shall contact the BLM AO (Dan Sellers at 307-684-1100) at least 4 days prior to beginning operations so that the meeting can be scheduled. The operator is responsible for having all contractors present (dirt contractors, drilling contractor, pipeline contractor, project oversight personnel, etc.) including the overall field operations superintendent, and for providing all contractors copies of the approved POD, project map, and BLM *Conditions of Approval* pertinent to the work that each will be doing.
2. Reserve pits will be adequately fenced during and after drilling operations until pit is reclaimed so as to effectively keep out wildlife and livestock. Adequate fencing, in lieu of more stringent requirements by the surface owner, is defined as follows:
    - Construction materials will consist of steel or wood posts. Three or four strand wire (smooth or barbed) fence or hog panel (16-foot length by 50-inch height) or plastic snow fence must be used with connectors such as fence staples, quick-connect clips, hog rings, hose clamps, twisted wire, etc. Electric fences will not be allowed.

- Construction standards: Posts shall be firmly set in ground. If wire is used it must be taut and evenly spaced, from ground level to top wire, to effectively keep out animals. Hog panels must be tied securely into posts and one another using fence staples, clamps, etc. Plastic snow fencing must be taut and sturdy. Fence must be at least 2 feet from edge of pit. three sides fenced before beginning drilling, the fourth side fenced immediately upon completion of drilling and prior to rig release. Fence must be left up and maintained in adequate condition until pit is closed.

3. Reserve pits will be closed as soon as possible, but no later than 90 days from time of drilling/well completion, unless the BLM AO gives an extension. Squeezing of pit fluids and cuttings is prohibited. Pits must be dry of fluids or they must be removed via vac truck or other environmentally acceptable method prior to backfilling, recontouring and replacement of topsoil. Mud and cuttings left in pit must be buried at least 3 feet below recontoured grade. The operator will be responsible for recontouring any subsidence areas that develop from closing a pit before it is sufficiently dry.
4. The operator shall complete wells (case, cement and under ream) as soon as possible, but no later than 30 days after drilling operations, unless an extension is given by the BLM AO.
5. If in the process of air drilling the wells there is a need to utilize mud, all circulating fluids will be contained either in an approved pit or in an aboveground containment tank. The pit or containment tank will be large enough to safely contain the capacity of all expected fluids without danger of overflow. Fluid and cuttings will not be squeezed out of the pit, and the pit will be reclaimed in an expedient manner.
6. The operator shall restrict travel on unimproved two-track roads during periods of inclement weather or spring thaw when the possibility exists for excessive surface resource damage (e.g., rutting in excess of 4 inches, travel outside two-track roadway, etc.).
7. Phased reclamation plans will be submitted to BLM for approval prior to individual POD facility abandonment via a Notice of Intent (NOI) Sundry Notice. Individual facilities, such as well locations, pipelines, discharge points, impoundments, etc. need to be addressed in these plans as they are no longer needed. Individual items that will need to be addressed in reclamation plans include:
    - Pit closure (Close as soon as possible after suitably dry, but no later than 90 days from time of drilling unless an extension is given by BLM AO). BLM may require closure prior to 90 days in some cases due to land use or environmental concerns.
    - Configuration of reshaped topography, drainage systems, and other surface manipulations.
    - Waste disposal.
    - Revegetation methods, including specific seed mix (pounds pure live seed/acre) and soil treatments (seedbed preparation, fertilization, mulching, etc.). On private surface, the landowner should be consulted for the specific seed mix.
    - Other practices that will be used to reclaim and stabilize all disturbed areas, such as water bars, erosion fabric, hydro-mulching, etc.
    - An estimate of the timetables for beginning and completing various reclamation operations relative to weather and local land uses.
    - Methods and measures that will be used to control noxious weeds, addressing both ingress and egress to the individual well or POD.
    - Decommissioning/removal of all surface facilities.

- Closure and reclamation of areas utilized or impacted by produced CBM water, including discharge points, reservoirs, off-channel pits, land application areas, livestock/wildlife watering facilities, surface discharge stream channels, etc.

8. The first well drilled to each targeted coal zone will be designated as the POD reference well. Designated reference wells must have the ability to be sampled at the wellhead. Water quality samples will be collected by the operator and submitted for analysis using WDEQ National Pollution Discharge Elimination System (NPDES) criteria within 30 to 60 days of initial water production. Results of the analysis will be submitted to the Buffalo FO-BLM AO as soon as they become available.

Pertinent to All Oil and Gas Well Developmen

General

1. If any cultural values (sites, artifacts, human remains [Appendix L, FEIS]) are observed during operation of this lease/permit/right-of-way, they will be left intact and the Buffalo Field Manager notified. The AO will conduct an evaluation of the cultural values to establish appropriate mitigation, salvage or treatment. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized BLM AO. Within 5 working days the AO will inform the operator as to:

   - Whether the materials appear eligible for the National Register of Historic Places;
   - The mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and
   - A time-frame for the AO to complete an expedited review under 36 Code of Federal Regulations 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction measures.

2. If paleontological resources, either large or conspicuous, and/or a significant scientific value are discovered during construction, the find will be reported to the AO immediately. Construction will be suspended within 250 feet of said find. An evaluation of the paleontological discovery will be made by a BLM-approved professional paleontologist within 5 working days, weather permitting, to determine the appropriate action(s) to prevent the potential loss of any significant paleontological values. Operations within 250 feet of such a discovery will not be resumed until written authorization to proceed is issued by the AO. The operator will bear the cost of any required paleontological appraisals, surface collection of fossils, or salvage of any large conspicuous fossils of significant scientific interest discovered during the operation.

3. Please contact Dan Sellers, BLM Buffalo FO Natural Resource Specialist (307-684-1100), if there are any questions concerning the following surface use COAs.

Construction

1. The operator will limit vegetation removal and the degree of surface disturbance wherever possible. Where surface disturbance cannot be avoided, all practicable measures will be utilized to minimize erosion and stabilize disturbed soils.

2. Construction and drilling activity will not be conducted using frozen or saturated soil material during periods when watershed damage or excessive rutting is likely to occur.

3. Remove all available topsoil (depths vary from 4 inches on ridges to 12+ inches in bottoms) from constructed well locations including areas of cut and fill, and stockpile at the site. Topsoil also will be salvaged for use in reclamation on all other areas of surface disturbance (roads, pipelines, etc.). Clearly segregate topsoil from excess spoil material. Any topsoil stockpiled for 1 year or longer will be signed and stabilized with annual ryegrass or other suitable cover crop.
4. The operator will not push soil material and overburden over side slopes or into drainages. All soil material disturbed will be placed in an area where it can be retrieved without creating additional undue surface disturbance and where it does not impede watershed and drainage flows.
5. Construct the backslope no steeper than ½:1, and construct the foreslope no steeper than 2:1, unless otherwise directed by the BLM AO.
6. Maintain a minimum 20-foot undisturbed vegetative border between toe-of-fill of pad and/or pit areas and the edge of adjacent drainages, unless otherwise directed by the BLM AO.
7. With the overall objective of minimizing surface disturbance and retaining land stability and productivity, the operator shall utilize equipment that is appropriate to the scope and scale of work being done for roads and well pads (utilize equipment no larger than needed for the job).
8. The operator shall utilize wheel trenchers or ditch witches to construct all pipeline trenches, except where extreme topography or other environmental factors preclude their use.
9. Reserve pit will be adequately fenced during and after drilling operations until reclaimed so as to effectively keep out wildlife and livestock. This requires that it be fenced on the three nonworking sides prior to drilling and on the remaining side immediately following rig release. Fencing will be constructed in accordance with BLM specifications. Plastic snow fence is not acceptable fencing material for conventional wells.
10. The reserve pit will be oriented to prevent collection of surface runoff. After the drilling rig is removed, the operator may need to construct a trench on the uphill side of the reserve pit to divert surface drainage around it. If constructed, the trench will be left intact until the pit is closed.
11. The reserve pit will be lined with an impermeable liner if permeable subsurface material is encountered. An impermeable liner is any liner having a permeability less than 10^{-7} centimeters per second. The liner will be installed so that it will not leak and will be chemically compatible with all substances that may be put in the pit. Liners made of any man-made synthetic material will be of sufficient strength and thickness to withstand normal installation and pit use. In gravelly or rocky soils, a suitable bedding material such as sand will be used prior to installing the liner.
12. The reserve pit will be constructed so that at least half of its total volume is in solid cut material (below natural ground level).
13. Culverts will be placed on channel bottoms on firm, uniform beds, which have been shaped to accept them, and aligned parallel to the channel to minimize erosion. Backfill will be thoroughly compacted.
14. The minimum diameter for culverts will be 18 inches. However, all culverts will be appropriately sized in accordance with standards in BLM Manual 9113.
15. Construction and other project-related traffic will be restricted to approved routes. Cross-country vehicle travel will not be allowed.
16. Maximum design speed on all operator constructed and maintained roads will not exceed 25 miles per hour.

17. Pipeline construction shall not block nor change the natural course of any drainage. Pipelines shall cross perpendicular to drainages. Pipelines shall not be run parallel in drainage bottoms. Suspended pipelines shall provide adequate clearance for maximum runoff.

18. Pipeline trenches shall be compacted during backfilling. Pipeline trenches shall be routinely inspected and maintained to ensure proper settling, stabilization and reclamation.

19. During construction, emissions of particulate matter from well pad and road construction will be minimized by application of water or other non-saline dust suppressants with at least 50 percent control efficiency. Dust inhibitors (surfacing materials, non-saline dust suppressants, and water) will be used as necessary on unpaved roads that present a fugitive dust problem. The use of chemical dust suppressants on public surface will require prior approval from the BLM AO.

20. Operators are required to obtain a NPDES Storm Water Permit from the WDEQ for any projects that disturb 5 or more acres (changing to 1 acre in March 2005). This general construction storm water permit must be obtained from WDEQ prior to any surface-disturbing activities and can be obtained by following directions on the WDEQ website at http://deq.state.wy.us. Further information can be obtained by contacting Barb Sahl (307-777-7570).

21. The operator shall submit a Sundry Notice (Form 3160-5) to BLM for approval prior to construction of any new surface-disturbing activities that are not specifically addressed in the approved APD or POD Surface Use Plan.

Operations/Maintenance

1. Confine all equipment and vehicles to the access road(s), pad(s), and area(s) specified in the approved APD or POD.

2. All waste, other than human waste and drilling fluids, will be contained in a portable trash cage. This waste will be transported to a State-approved waste disposal site immediately upon completion of drilling operations. No trash or empty barrels will be placed in the reserve pit or buried on location. All State and local laws and regulations pertaining to disposal of human and solid waste will be complied with.

3. The operator will be responsible for prevention and control of noxious weeds and weeds of concern on all areas of surface disturbance associated with this project (well locations, roads, water management facilities, etc.). Use of pesticides shall comply with the applicable Federal and State laws. Pesticides shall be used only in accordance with their registered uses and within limitations imposed by the Secretary of Interior. Prior to the use of pesticides on public land, the holder shall obtain from the BLM AO written approval of a plan showing the type and quantity of material to be used, pest(s) to be controlled, method of application, location of storage and disposal of containers, and any other information deemed necessary by the AO to such use.

4. All permanent aboveground structures (e.g., production equipment, tanks, et cetera) not subject to safety requirements will be painted to blend with the natural color of the landscape. The paint used will be a color which simulates "Standard Environmental Colors." The color selected for this Table Mountain Phase 4 CBNG POD is Covert Green.

5. Sewage shall be placed in a self-contained, chemically treated porta-potty on location.

6. The operator and their contractors shall ensure that all use, production, storage, transport, and disposal of hazardous and extremely hazardous materials associated with the drilling, completion, and production of this well will be in accordance with all applicable existing or hereafter promulgated Federal, State, and Local government rules, regulations and guidelines. All project-related activities involving hazardous materials will be conducted in a manner to minimize potential environmental impacts. In accordance with Occupational Safety and Health Administration

requirements, a file will be maintained onsite containing current Material Safety Data Sheets for all chemicals, compounds and/or substances which are used in the course of construction, drilling, completion and production operations.

7. Produced fluids shall be put in test tanks on location during completion work. Produced water will be put in the reserve pit during completion work per Onshore Order #7.

8. The only fluids/waste materials, which are authorized to go into the reserve pit are Resource Conservation and Recovery Act exempt exploration and production wastes. These include:

   - Drilling muds and cuttings;
   - Rigwash; and
   - Excess cement and certain completion and stimulation fluids defined by the EPA as exempt.

   It does not include drilling rig waste, such as:

   - Spent hydraulic fluids;
   - Used engine oil;
   - Used oil filter;
   - Empty cement, drilling mud, or other product sacks;
   - Empty paint, pipe dope, chemical or other product containers; and
   - Excess chemicals or chemical rinsate.

   Any evidence of non-exempt wastes being put into the reserve pit may result in the BLM AO requiring specific testing and closure requirements.

9. Operators are advised that prior to installation of any oil and gas well production equipment, which has the potential to emit air contaminants, the owner or operator of the equipment must notify the WDEQ, Air Quality Division (307-777-7391) to determine permit requirements. Examples of pertinent well production equipment include fuel-fired equipment (e.g., diesel generators); separators; storage tanks; engines; and dehydrators.

10. If this well is drilled during the fire season (June through October), the operator shall institute all necessary precautions to ensure that fire hazard is minimized, including but not limited to mowing vegetation on the access route(s) and well location(s), keeping firefighting equipment readily available when drilling, etc.

Dry Hole/Reclamation

1. All disturbed lands associated with this project, including the pipelines, access roads, water management facilities, etc. will be expediently reclaimed and reseeded in accordance with the surface use plan and any pertinent site-specific COAs.

2. Disturbed lands will be recontoured back to conform with existing undisturbed topography. No depressions will be left that trap water or form ponds.

3. The fluids and mud must be dry in the reserve pit before recontouring pit area. The operator will be responsible for recontouring of any subsidence areas that develop from closing a pit before it is completely dry. The plastic pit liner (if any) will be cut off below grade and properly disposed of at a state authorized landfill before beginning to recontour the site.

4. Before the location has been reshaped and prior to redistributing the topsoil, the operator will rip or scarify the drilling platform and access road on the contour, to a depth of at least 12 inches. The rippers are to be no farther than 24 inches apart.

5. Distribute the topsoil evenly over the entire location and other disturbed areas. Prepare the seedbed by disking to a depth of 4 to 6 inches following the contour.

6. Waterbars are to be constructed at least 1 foot deep, on the contour with approximately 2 feet of drop per 100 feet of waterbar to ensure drainage, and extended into established vegetation. All waterbars are to be constructed with the berm on the downhill side to prevent the soft material from silting in the trench. The initial waterbar should be constructed at the top of the backslope. Subsequent waterbars should follow the following general spacing guidelines:

Slope (percent)	Spacing Interval (feet)
≤2	200
2 – 4	100
4 – 5	75
≥5	50

7. BLM will not release the performance bond until the area has been successfully revegetated (evaluation will be made after the second complete growing season) and has met all other reclamation goals of the surface owner and surface management agency.
8. A Notice of Intent to Abandon and a Subsequent Report of Abandonment must be submitted for abandonment approval.
9. For performance bond release approval, a Final Abandonment Notice (with a surface owner release letter on split-estate) must be submitted prior to a final abandonment evaluation by BLM.
10. Soil fertility testing and the addition of soil amendments may be required to stabilize some disturbed lands.
11. Any mulch utilized for reclamation needs to be certified weed free.

Producing Well

1. Landscape those areas not required for production to the surrounding topography as soon as possible. The fluids and mud must be dry in the reserve pit before recontouring pit area. The operator will be responsible for recontouring and reseeding of any subsidence areas that develop from closing a pit before it is completely dry.

2. Reduce the backslope to 2:1 and the foreslope to 3:1, unless otherwise directed by the BLM AO. Reduce slopes by pulling fill material up from foreslope into the toe of cut slopes.

3. Production facilities (including dikes) must be placed on the cut portion of the location and a minimum of 15 feet from the toe of the back cut unless otherwise approved by the BLM AO.

4. A dike will be constructed completely around the production facilities (i.e., production tanks, water tanks, and heater-treater). The dikes for the production facilities must be constructed of impermeable soil, hold 110 percent of the capacity of the largest tank plus 1 foot of freeboard, and be independent of the back cut.

5. Any chemicals used in treating the wells (e.g., corrosion inhibitor, emulsion breaker, etc.) will be in a secure, fenced-in area with appropriate secondary containment structure (dikes, catchment pan, etc.).

6. The load out line coming from the oil/condensate tank(s) will have a suitable containment structure to capture and recycle any oil spillage that might occur.

7. Any spilled or leaked oil, produced water, or treatment chemicals must be reported in accordance with NTL-2A and immediately cleaned up in accordance with BLM requirements. This includes clean-up and proper disposition of soils contaminated as a result of such spills/leaks.

8. Distribute stockpiled topsoil evenly over those areas not required for production and reseed as recommended.
9. Upgrade and maintain access roads and drainage control (e.g., culverts, drainage dips, ditching, crowning, surfacing, etc.) as necessary and as directed by the BLM AO to prevent soil erosion and accommodate safe, environmentally sound access.
10. Prior to construction of production facilities not specifically addressed in the APD/POD, the operator shall submit a Sundry Notice to the BLM AO for approval.
11. If not already required prior to constructing and drilling the well location, the operator shall immediately upgrade the entire access road to BLM standards (including topsoiling, crowning, ditching, drainage culverts, surfacing, etc.) to ensure safe, environmentally sound, year-round access.
12. Waterbars shall be installed on all reclaimed pipeline corridors per the guidelines in B.3.2.4.

Operator Committed Measures

The operator has incorporated several measures to alleviate resource impacts. For a detailed description of the design features, construction practices, and water management strategies associated with the Proposed Action, refer to the final Master Multi-Point Surface Use Plan, submitted on July 19, 2010, with clarifying information filed August 4 and 5, 2010, and resubmitted on August 18, 2010. Additional operator committed measures are incorporated in the following documents: Master Drilling Prognosis, Integrated Weed and Pest Management Plan, Water Management Plan, individual Federal APDs, POD maps, Wildlife Mitigation Plan (focus on sage-grouse conservation). And site-specific reclamation plans. These documents are available for review as part of the Table Mountain Phase 4 Administrative Record maintained at the BLM Buffalo FO.

Additionally, the Operator, in their POD, has committed to:

1. Comply with all applicable Federal, State, and Local laws and regulations.
2. Obtain the necessary permits for the drilling, completion and production of these wells including water rights appropriations, the installation of water management facilities, water discharge permits, and relevant air quality permits.
3. Offer water well agreements to the owners of record for permitted water wells within 0.5 mile of a Federal CBNG producing well in the POD.
4. Provide water analysis from a designated reference well in each coal zone.
5. The Operator has certified that a Surface Use Agreement has been reached with the landowners.